

ABSTRACT OF THE DISCLOSURE

Method For Forming Consumable Electrodes From Metallic Chip Scraps

The present invention relates to metallurgical recycling of waste products, preferably titanium alloys chips scrap.

In the present invention, after crushing and cleaning, the chip scrap is subjected to vacuum-thermal degassing (VTD); the chip scrap is pressed into briquettes; the briquettes are placed into a mould allowing sufficient remaining space for the addition of molten metal alloy; the mould is pre-heated before filling with the molten metal alloy; the mould remaining space is filled with molten metal alloy. After cooling, the electrode is removed from the mould.

The present invention provides a means for 100% use of chip scrap in producing consumable electrodes having increased mechanical strength and reduced interstitial impurities content leading to improved secondary cast alloys.